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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/552,018	10/03/2005	Murray Figov	91260MGB	2044
1333 7590 06/15/2007 EASTMAN KODAK COMPANY PATENT LEGAL STAFF 343 STATE STREET ROCHESTER, NY 14650-2201			EXAMINER STEVENOSKY, MARK J	
			ART UNIT 2853	PAPER NUMBER
			MAIL DATE 06/15/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/552,018	Applicant(s) FIGOV, MURRAY	
	Examiner Mark John Stevenosky, Jr.	Art Unit 2853	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 October 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3,31,32 and 41-52 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3,31,32 and 41-52 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 October 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>1/3/2006</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of 1-3,31,32,41-52 in the reply filed on 5/9/2007 is acknowledged.

Double Patenting

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3. Claims 1,2 provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 83 of copending Application No. 10/543,307. Although the conflicting claims are not identical, they are not patentably distinct from each other because claim 1 of instant application lacks the specifics of the

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solution in step b, but claim 2 discloses the hydrophilic and hydrophobic specifics. The differences in the claims are obvious and are demarcated below.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Instant application	10/543,307
<p>1. A method of producing ink jet printed images with high resistance to physical and chemical damage on plastic surfaces, comprising the steps of:</p> <p>a. providing a plastic object;</p> <p>b. coating at least part of the surface of the plastic object with an under-coating solution;</p> <p>c. evaporating off the volatile part of the under-coated solution, thus depositing a solid film on the surface of the plastic object;</p> <p>d. providing at least one ink-jet ink comprising a colorant and aqueous carrier;</p> <p>e. jetting the ink by means of an ink-jet system onto the surface of the under-</p>	<p>83. A method of producing ink-jet printed images with high resistance to physical and chemical damage on plastic surfaces, comprising the steps of:</p> <p>a. providing a plastic object;</p> <p>b. coating at least part of the surface of the plastic object with a solution containing a mixture of a hydrophilic polymer or polymers together with a hydrophobic polymer;</p> <p>c. evaporating off the volatile part of the coated solution, thus depositing a solid film on the surface of the plastic object;</p> <p>d. providing an ink-jet ink comprising a colorant and aqueous carrier;</p> <p>e. jetting the ink by means of an ink-jet</p>

<p>coating on the plastic object;</p> <p>f. warming the printed surface to drive part of the water in the ink into the under-coating and to evaporate the remaining part of the water;</p> <p>g. over-coating the dried surface with a water-based coating; and</p> <p>h. heating the over-coating to dry or cure it and to seal-in the previously deposited ink and under-coating.</p> <p>2. The method of claim 1, wherein the under-coating solution contains a mixture of hydrophilic polymer or polymers together with a hydrophobic polymer.</p>	<p>system onto the surface of the coating on the plastic object;</p> <p>f. warming the printed surface to drive part of the water in the ink into the surface coating and to evaporate the other part of the water, as well as causing cross-linking of the deposited layer;</p> <p>g. over-coating the dried surface with a water-based coating; and</p> <p>h. heating the over-coating to seal-in the previously deposited ink and coating.</p>
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Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claim 52 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant

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regards as the invention. Regarding claim 52, FDA regulations for food products may have changed through the years and may change in the future, thus do not provide a clear set of limitations.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1,3,31,32,43,46,47,48,51 rejected under 35 U.S.C. 103(a) as being unpatentable over Hasegawa et al. (US 4,966,804) in view of Askeland et al. (US 6,443,568).

Regarding claim 1, Hasegawa discloses a method of producing ink jet printed images comprising the steps of:

- providing a plastic object [Column 3, Lines 8-13]
- coating at least part of it with an undercoat [Column 3, Lines 45-49]
- providing at least one ink-jet comprising a colorant and aqueous carrier [Column 3, Lines 50-55]
- over-coating the surface with a water based coating [Columns 3-4, Lines 56-17]
- heating the overcoat [Column 4, Lines 17-38]

Hasegawa fails to disclose evaporating after the undercoat step and warming after the inkjet step.

However, Askeland teaches heating after an undercoat step as well as heating after an inkjet step [Columns 3-4, Lines 55-10]. Thus, it would have been obvious to one of ordinary skill in the art at the time of invention to modify the invention of Hasegawa with the invention of Askeland, as doing so would provide enhanced printing quality by reducing bumps on the ink surface [Column 3, Line 60].

Regarding claim 3, Hasegawa discloses a dye ink [Column 4, Line 42].

Regarding claim 31, Hasegawa discloses a film or sheet of plastic [Column 3, Line 7; examiner has taken a sheet or film to be equivalent to a card, given that a card can be a flat rectangular sheet]

Regarding claim 32, Hasegawa discloses a plastic object of polyvinyl chloride [Column 3, Line 9].

Regarding claim 43, Hasegawa discloses a single printer which performs all of the steps of the method [Column 2, Lines 18-63].

Regarding claim 46, Hasegawa discloses an undercoat in sheet form [Column 2, Line 30].

Regarding claim 47, Hasegawa discloses a plastic card being undercoated, imaged and over-coated [Column 3, Line 7].

Regarding claim 48, Hasegawa discloses a plastic card.

Regarding claim 51, Hasegawa fails to disclose resistance to a Crockmeter, but discloses an object with high physical and chemical resistance and provides examples of such [Column 5].

8. Claim 2 rejected under 35 U.S.C. 103(a) as being unpatentable over Hasegawa et al. (US 4,966,804) in view of Askeland et al. (US 6,443,568) in further view of Patterson et al. (US 4,732,786).

Regarding claim 2, Hasegawa in view of Askeland fails to disclose an undercoat of hydrophilic/hydrophobic polymers. However, Patterson discloses an undercoat of hydrophilic/hydrophobic polymers [Column 4, Line 66]. Thus it would have been obvious to one of ordinary skill in the art at the time invention to modify the inventions of Hasegawa and Askeland with the invention of Patterson, as doing so would allow the layer to be receptive to aqueous vehicles in the ink jet ink.

9. Claims 41,42 rejected under 35 U.S.C. 103(a) as being unpatentable over Hasegawa et al. (US 4,966,804) in view of Askeland et al. (US 6,443,568) in further view of Uerz et al (US 7,219,989).

Regarding claims 41 and 42, Hasegawa in view of Askeland fails to disclose the limitations. However Uerz teaches an overcoat of watersoluble amino-plasts and acid catalysts as well as water based emulsions plus alkali [Columns 9-11]. Thus it would have been obvious to one of ordinary skill in the art at the time of invention to modify the invention of Hasegawa as modified by Askeland with the overcoat of Uerz, as doing so would provide a stain resistant overcoat.

10. Claims 44,49 rejected under 35 U.S.C. 103(a) as being unpatentable over Hasegawa et al. (US 4,966,804) in view of Askeland et al. (US 6,443,568) in further view of Yang (US 5,594,044).

Regarding claims 44,49, Hasegawa in view of Askeland disclose a plastic object, but not a bottle specifically. However, Yang discloses printing on a plastic bottle [Column 7-8, Lines 60-10]. Thus it would have been obvious to one of ordinary skill in the art at the time of invention to modify the inventions of Hasegawa and Askeland with the invention of Yang, as it would provide good adhesion and it made of the same material as the plastic from instant application..

11. Claim 50 rejected under 35 U.S.C. 103(a) as being unpatentable over Hasegawa et al. (US 4,966,804) in view of Askeland et al. (US 6,443,568) in further view of Irihara et al. (US 6,428,143).

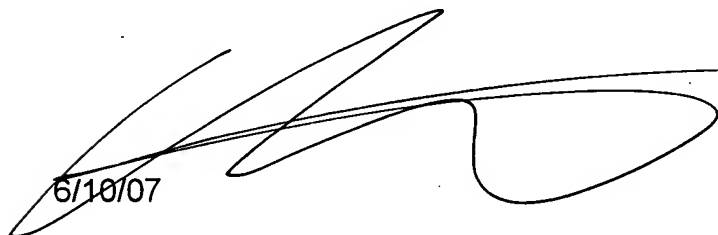
Hasegawa in view of Askeland fail to disclose a white undercoat. However, Irihara discloses a white undercoat layer [Column 11, Lines 46-55]. Thus it would have been obvious to one of ordinary skill in the art at the time of invention to modify the inventions of Hasegawa and Askeland with the invention of Irihara, as doing so would provide superior printing quality.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark John Stevenosky, Jr. whose telephone number is (571) 270-1336. The examiner can normally be reached on Monday-Friday 8AM-4:30PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Meier can be reached on (571) 272-2149. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



6/10/07

Mark John Stevenosky, Jr.
Examiner
Art Unit 2853



6/11/07
MANISH S. SHAH
PRIMARY EXAMINER